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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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EXAMINER

MAHMOUDI, HASSAN

ART UNIT

PAPER NUMBER

2175

DATE MAILED: 09/11/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|---------------------------|---------------------------------|
| Office Action Summary | Application No. | Applicant(s) MCMULLAN ET AL. |
| | Examiner Tony Mahmoudi | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121. *DOV POPOVIC*

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

- 4) Interview Summary (PTO-413) Paper No(s) _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

SUPERVISORY PATENT EXAMINER

DOV POPOVIC
GY CENTER 2100

DETAILED ACTION***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-5 and 8-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Perkowski (U.S. Pub. No. 2003/0139975.)

As to claim 1, Perkowski teaches a computer system (see Abstract) comprising:
a first computer network (see figures 2-1 and 2-2 and see page 8, paragraph 96);
a first computer subsystem comprising (see figures 1 and 2C, and page 9, paragraph 102)
collaborative application software, with the collaborative application software comprising
machine readable instructions for sending application output data over the computer network
(see page 8, paragraph 95);
a second computer subsystem structured to receive the application output data (see figure
2C, and see page 9, paragraph 102); and

a second-subsystem firewall, located in front of the second application subsystem (see figure 2C, and see page 9, paragraph 102), the second-subsystem firewall structured to communicate the application output data to the second computer subsystem (see page 14, paragraph 175) through a hypertext transfer protocol (see page 7, paragraph 83) keep-alive connection that is kept open for the duration of a collaboration (see page 15, paragraph 178.)

As to claim 2, Perkowsky teaches wherein the computer system further comprises communication software (see page 11, paragraph 131) comprising machine readable instructions (it is inherent that communication software has machine readable instructions) for opening a first-subsystem thread in the second computer subsystem for receiving the application output data (see page 13, paragraph 163.)

As to claim 3, Perkowsky teaches wherein:

the second computer subsystem comprises a second-subsystem socket structured to receive the application output data (see page 18, paragraph 206); and

the communication software (see page 11, paragraph 131) further comprises machine readable instructions for causing the second-subsystem socket to block on a read (see page 18, paragraph 206, where “block on a read” is read on “carrying out a search”)

As to claim 4, Perkowsky teaches wherein the communication software further comprises instructions causing the first-subsystem thread to sleep (see page 24, paragraph 233, where “sleep” is read on “idle moment”.)

As to claim 5, Perkowsky teaches wherein the collaborative application software sends the application output data as a stateful communication (see page 35, paragraph 340, where “stateful” is read on “reflecting the state of the client and the server”.)

As to claim 8, Perkowsky teaches wherein the first computer subsystem (see figure 2C) comprises:

a server computer (see figure 2C, computer 202);
a Web server computer (see figure 2C, server 133), and
a second computer network structured to allow data communication between the server computer and the Web server computer (see figure 2C, the subsystem shown below the “corporate firewall”.)

As to claim 9, Perkowsky teaches wherein:
the server computer comprises at least a portion of the collaborative applications software (see page 11, paragraph 131); and
the Web server computer (see figure 2C, computer 133) is structured to receive the application output data from the server computer over the second computer network and to send the application output data to the second computer subsystem over the first computer network (see figure 2C, and see page 13, paragraphs 163-164.)

As to claim 10, Perkowski teaches wherein:

the Web server computer (see figure 2C, computer 133) comprises a Web server socket structured to receive the application output data from the server computer over the second computer network (see page 9, paragraph 100); and

the communication software (see page 11, paragraph 131) further comprises machine readable instructions (it is inherent that communication software has machine readable instructions) for causing the Web server socket to block on a read (see page 18, paragraph 206, where “block on a read” is read on “carrying out a search”.)

As to claim 11, Perkowski teaches the system further comprising:

a third computer subsystem structured to receive the application output data (see figure 3A9); and

a third-subsystem firewall, located in front of the third computer subsystem the third subsystem firewall structured to communicate the application output data to the third computer subsystem through a hypertext transfer protocol (see page 7, paragraph 83) keep-alive connection (see page 15, paragraph 178.)

As to claim 12, Perkowski teaches wherein:

the third computer subsystem comprises a third-subsystem socket structured to receive the application output data (see page 18, paragraph 206); and

the communication software further comprises machine readable instructions for causing the third-subsystem socket to block on a read (see page 18, paragraph 206, where “block on a read” is read on “carrying out a search”.)

As to claim 13, Perkowski teaches wherein communication between the first computer subsystem, the second computer subsystem and the third computer subsystem is in real-time (see page 67, paragraph 760.)

As to claim 14, Perkowski teaches wherein the collaborative application software comprises at least one of the following functions: a word processor, a task scheduling tool, a graphics program, a presentation program, a spreadsheet, a game, a music studio (see page 66, paragraph 757.)

As to claim 15, Perkowski teaches a method of communicating over a computer network (see Abstract), the method comprising the steps of:
generating, by a collaborative application software residing on a server computer, an application output communication (see page 8, paragraph 97);
sending, over a first computer network (see figure 2C), the application output communication to a client firewall (see page 7, paragraph 83);
communicating the application output communication (see page 2, paragraph 22, where “communicating” is read on “transmitting”) across the client firewall through a hypertext transfer protocol keep-alive connection keep-alive connection (see page 15, paragraph 178);

receiving the application output data at a client computer (see page 14, paragraph 175),
and

keeping the hypertext transfer protocol keep-alive connection for the duration of a
collaboration (see page 15, paragraph 178.)

As to claim 16, Perkowski teaches wherein the client computer blocks on a read when
waiting for and receiving the application output data (see page 18, paragraph 206, where
“block on a read” is read on “carrying out a search”.)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness
rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the
manner in which the invention was made.

4. Claims 6-7 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Perkowski (U.S. Pub. No. 2003/0139975) in view of Erickson et al (U.S. patent No.
6,412,009.)

As to claim 6, Perkowski teaches the application output data is structured and arranged
according to an HTTP protocol (see page 19, paragraph 208.)

Perkowski does not teach an HTTP 1.1 protocol.

Erickson et al teaches a persistent HTTP tunnel (see Abstract), in which he teaches an HTTP 1.1 protocol (see column 6, lines 14-18, and see column 7, lines 3-13.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Perkowski to include an HTTP 1.1 protocol.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Perkowski by the teaching of Erickson et al, because "a newer" HTTP 1.1 protocol, would "provide a keep-alive mechanism that allows one connection for multiple objects on an HTML page, as taught by Erickson et al (see column 2, lines 10-19.)

As to claim 7, Perkowski as modified still does not teach wherein:
the second-subsystem firewall comprises a port 80; and
the application output data is communicated across the second-subsystem firewall through a connection originated through port 80.

Erickson et al teaches a persistent HTTP tunnel (see Abstract), in which he teaches:
the second-subsystem firewall comprises a port 80 (see figure 3, port 130); and
the application output data is communicated across the second-subsystem firewall through a connection originated through port 80 (see column 5, line 47 through column 6, line 3.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Perkowski as modified, to include the second-subsystem firewall comprises a port 80; and the application output data is

communicated across the second-subsystem firewall through a connection originated through port 80.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Perkowsky as modified, by the teaching of Erickson et al, because including the second-subsystem firewall comprises a port 80; and the application output data is communicated across the second-subsystem firewall through a connection originated through port 80, would prevent making additional holes in firewalls as taught by Erickson et al (see column 5, lines 60-62.)

As to claim 17, Perkowsky teaches the method further comprising the step of originating a connection across the client firewall through a port of client firewall (see figure 2C.)

Perkowsky does not teach connecting through port 80 of the firewall.

Erickson et al teaches a persistent HTTP tunnel (see Abstract), in which he teaches connecting through port 80 of the firewall (see column 5, line 47 through column 6, line 3.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Perkowsky to include connecting through port 80 of the firewall.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Perkowsky by the teaching of Erickson et al, because connecting through port 80 of the firewall, would prevent making additional holes in firewalls as taught by Erickson et al (see column 5, lines 60-62.)

As to claim 18, Perkowski teaches wherein the application output data is sent, at the sending step, as a plurality of data packets structured and arranged according to HTTP (see page 19, paragraph 208.)

Perkowski does not teach an HTTP 1.1.

Erickson et al teaches a persistent HTTP tunnel (see Abstract), in which he teaches an HTTP 1.1 (see column 6, lines 14-18, and see column 7, lines 3-13.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Perkowski to include an HTTP 1.1.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Perkowski by the teaching of Erickson et al, because "a newer" HTTP 1.1, would "provide a keep-alive mechanism that allows one connection for multiple objects on an HTML page, as taught by Erickson et al (see column 2, lines 10-19.)

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of art with respect to methods and systems of manipulating network communication protocols and data formats in general:

| Patent No. | Issued to | Cited for teaching |
|-----------------------------|---------------|---|
| US Pub. No. 2002/0108059 | Canion et al. | Network Security and connections through firewalls. |

6. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (703) 305-4887. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

tm

August 6, 2003


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